

The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

WESTBOROUGH STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30,

1932

DEPARTMENT OF MENTAL DISEASES



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REPORT OF THE TRUSTEES

To His Excellency, the Governor, and the Honorable Council:

The Trustees of the Westborough State Hospital present this, their forty-eighth annual report.

Some of the accomplishments of the year will be described, and our recommendations for the future will be included.

The most noticeable improvements have been the two new buildings completed recently. The need of them and the processes of construction have been mentioned in former reports. One of them, the Assembly Building, was opened for use in the month of October. The auditorium is the most important portion, with seating capacity for 800 persons. It is in this room that religious services and meetings are held, and where entertainments and moving pictures are given. In the base-

ment are several attractions. The social centre for employees has been given most space. This room is large and bright and comfortably furnished, with tables for games and with papers and magazines for reading. Here may be found rest and relaxation by workers who have been tired and strained by their daily duties. It may be regarded as the lounge of a club. Opening out from it is the canteen, where ice cream, cakes, soft drinks and tobacco may be obtained by the employees on one side and by patients on the other side. Adjoining it is another attraction and a popular one, the bowling alley, that furnishes to many the diversion and exercise they need. This building is separated from all other buildings, as is advisable, but this admirable location compels the patients to walk a considerable distance in the open air. In stormy weather and at night, there is danger in such exposure. We hope an underground passageway may be provided soon that will connect it with the main group.

The other new building, at the Heath Farm is attractive and remarkably well adapted to its purpose. It houses 25 farm employees and 64 patients who work with them. Excellent provision has been made in the basement for bathing and change of clothing. A round bowl, at which ten men may wash their hands at one time in a circular spray, is near the entrance door. Individual lockers are just beyond; and then a shower invites each one to a refreshing bath. Clean bodies and indoor clothing, after exercise in the open air, suggest one of the attractions of a well-ordered golf club. Each side of the building has its diningroom on the first floor, with the kitchen between them; and each side has its bright dayroom with books and papers in the adjoining library. On the second floor, the sleeping rooms are well ventilated and comfortably furnished.

This hospital is nearing the half-century mark of its existence. Forty six years ago, the first patients were admitted. Some portions have been in constant use during all these years and should be renewed. The need for replacements and of construction will be given in detail by the superintendent in his report; but we hope it may be possible, even in this year of financial stress, for renovations and the changes required to prevent serious harm or disaster. New buildings are needed for the successful operation of the hospital, and some of them have been urged in former years. This year, however, we recommend the following items, all of them but one being for renovations of old construction or replacement of apparatus that has become unsafe. All of the items selected are of small expense: the estimated cost of these eight recommendations being \$47,000.

Changes in water supply system.

Electric refrigeration.

Tunnel to Assembly Building.

Root cellar and vegetable storage.

Pointing and painting buildings of main group.

Renewing plumbing in Talbot Building.

Renovating Richmond Sanitarium.

Fire escapes, West Wing, female wards.

As an illustration of the increase of hospitals, during the life of this institution, a recent writer has stated, that, in 1875, only nine years before this hospital was established, the number of hospitals in the whole country, public and private, was 661. A continuous increase in the number has been made until, in 1929, there were 6,852. It has been estimated that the investment in them amounts, to \$3,562,000,000. Of this total of nearly 7,000 hospitals, there are 2,604 that were not conducted for profit but were built and carried on by governments mostly, such as the nation, states, counties and cities; and they contained 247,970 beds. The writer also states:

"The hospital is at once a hotel and industrial plant, a repair and rehabilitation shop, a haven of refuge for those who are mentally or physically distressed, and an educational institution for the professions concerned with the provision of medical care. It is also a focal point for the concentration and dissemination of knowledge concerning health."

That description applies to this hospital. It has been active from the beginning in all these directions but special efforts have been made for the "repair and rehabilitation" of those who have come broken in mind or body.

Changes for the better have taken place everywhere during the life of this hospital. Of the structural improvements:—four-story buildings with wooden interiors have given way to two-story, fireproof buildings. Ward dining-rooms yielded largely to congregate dining-rooms; and now the cafeteria has become most popular. Electric lighting, then unknown, is now universal; and electricity has supplanted natural ice for refrigeration; it has become important, also, in the laundry and in the kitchen.

A half century ago, the state hospitals gave more thought to the custody of the insane than to their treatment. A considerable proportion of the patients were restrained mechanically or chemically: now the bodies are seldom fettered and the minds are rarely dulled with sedatives. The asylum has given way to the hospital. There has been a widespread realization of the fact that additional buildings are not so desirable as more cures. Treatment is the study; and restoration the aim of today.

It was hoped, in those earlier days, that careful examination of magnified portions of the abnormal brain would reveal definite morbid appearances, and that the changes from the normal might be diagnostic of each of the several forms of insanity. These efforts proved disappointing. Other directions of research have been followed in the intervening decades. Today study is given to the influence of the glands of the body upon conduct, thought and emotions. The effect upon the mind of impressions, shocks, and uncontrolled thoughts are investigated. Many institutions in this State and elsewhere are carrying on elaborate research; and we may hope that the nature of mental disorders may become understood at no distant date. Then treatment can be directed more intelligently and successfully; a larger proportion of the insane will be cured; and many of the beds now occupied will be needed no longer.

The efforts for "rehabilitation" of disordered minds have developed or improved, in recent years, these instrumentalities: new forms and uses of electricity for diagnosis and treatment, continuous warm baths, fever therapy, — malarial or electrical surgery, dentistry, subdermal medication and inoculation, physiotherapy, occupational therapy; colonic irrigation, moving pictures, radio, and personal hygiene.

The ministrations of a state hospital are no longer confined within the walls of its buildings or the boundaries of its grounds. The physicians go out to clinics, held in cities and towns, where they meet and give advice to those seeking help. A social worker from the hospital goes to the home of the patient and learns what may be of much value in the treatment of the member in the institution, and she can often give information to the family that is enlightening and helpful. Certain persons having a venereal disease may visit the hospital for special treatment. One of the physicians visits cities and towns in the district, and examines the children in the public schools who appear to be backward or to be manifesting abnormal tendencies.

It was a pleasant occasion, on the thirteenth of October, when nine nurses received diplomas after three years of study and practice in the Westborough State Hospital Training School for Nurses.

The annual reception for the members of the Consulting Board of Physicians and Surgeons and for the visiting staff took place on the twentieth of October. Once more the Trustees were able to express their gratitude to these specialists for their helpfulness in relieving the difficulties and distresses of many of our patients.

In our report for the year 1915, we expressed the need of accommodations for the insane at prices less than required by private hospitals and more than charged in state institutions. Since that year we have recognized the same need and have stated in subsequent reports our hopes that a separate building may be placed on the grounds of the state hospitals desiring them, where patients may have such care and surroundings as may be furnished for \$15. to \$40. a week. Such a unit would provide the treatment desired by a considerable proportion of the population, and it could be self-supporting. Many persons of affluence, in former years, are experiencing lessened incomes, in these years of depression, and would seek gratefully the provision of such a department in a state hospital. In the fiscal year of 1931, this hospital received \$158,538.85 from the board of patients, all of which

was paid into the State Treasury as required by law. If a portion of the income of a current year could be used in this hospital where it is earned, it would pay for the construction and furnishing of such a building.

At the March meeting, John T. Neary, D.D.S., of Southborough, was included in the membership of the Board, having been recently appointed by Governor Ely to succeed John Lowell Bacon, M.D., whose term had expired.

We take this opportunity to express our gratitude for the efforts of the medical officers, the heads of departments and all their co-laborers for the welfare of the patients. And we thank especially Dr. Lang for his constant and helpful leadership in the operation of this institution.

Respectfully submitted,

N. EMMONS PAINE, M.D., *Chairman*

THOMAS F. DOLAN,

FLORA L. MASON, *Secretary*

JOHN A. FRYE

SEWALL C. BRACKETT

EMILY YOUNG O'BRIEN

JOHN T. NEARY, D.D.S.,

Trustees.

REPORT OF THE SUPERINTENDENT

To the Board of Trustees of the Westborough State Hospital:

I respectfully submit this the forty-seventh annual report of the Superintendent of the Westborough State Hospital. The statistical tables and matters pertaining to movement of population refer to the statistical year ending September 30, 1932, and all other matters pertain to the fiscal year which terminated November 30, 1932.

MOVEMENT OF PATIENT POPULATION

At the end of the statistical year there were in the hospital 1,449 patients; in family care under the supervision of the hospital there were 27, and otherwise absent but still under commitment 207, making a total of 1,683 persons in the care of the hospital on that date. The daily average number of patients actually in the hospital was 1,398.313 for the statistical year and 1,411.054 for the fiscal year.

ADMISSIONS

There were 535 new patients admitted to the hospital of which 365 were first admissions, that is admitted to an institution for mental illness for the first time. Of these 324 were insane and the statistics which follow will deal solely with them. The number suffering with senile psychoses was 9, or 2.608 per cent and with psychoses with arteriosclerosis 86, or 24.927 per cent, making 27.535 per cent of all first admissions due to changes incident to advanced age as compared with 35.18 per cent last year. Why the number of such cases admitted this year should be smaller is difficult to determine. General paralysis was present in 13 cases, or 3.768 per cent, and cerebral syphilis in 3, or .369 per cent, making 4.637 per cent of first admissions caused by syphilitic infection. Psychoses due to alcohol were represented by 13 cases, or 3.768 per cent, this being substantially the same as last year. Manic-depressive psychosis was found in 69 cases, exactly 20 per cent of first admissions, as compared with 15.12 per cent last year. Of these 23 were of the manic type, 43 of the depressed, and 3 other types. 30 were men, and 39 women. Involution melancholia was found in 2 men and 11 women, these being 3.768 per cent. Dementia praecox was found in 96 cases, or 27.826 per cent, substantially the same proportion as last year. Psychosis with psychopathic personality accounted for 7 cases, or 2.028 per cent, and psychosis with mental deficiency 11, or 3.188 per cent. Other psychoses were found in from one to three cases as shown in the statistical tables.

There were 129 who had previously been admitted to Hospitals for the Insane and 41 who were received by transfer from other hospitals under the control of the Department of Mental Diseases. Of these latter 23 were from public institutions and 18 from private.

Fifty-five cases were admitted under Section 79 for ten days' temporary care, and of these one was discharged without psychosis, 2 died, 11 were committed for observation, 40 were regularly committed as insane and one remained as a voluntary patient. One hundred and eleven cases were admitted under Section 77 for

35 days' observation, and of these 28 were discharged as being without psychosis; two as recovered, one as unimproved, one died, 5 remained as voluntary sane and 74 were regularly committed as insane.

DISCHARGES

There were discharged from the hospital 437 persons, of whom 85 were deemed recovered, 70 improved, 30 unimproved, 37 not insane, 52 transferred to other hospitals, and 163 died. The percentage of deaths based on the number under treatment was 7.68. The number discharged, exclusive of deaths and transfers was 222, this being 44.9 per cent of admissions, exclusive of transfers.

MAINTENANCE

The sum of \$514,104.10 was expended for maintenance, this being a weekly per capita cost of \$7.0065. The following table shows the comparative per capita cost for the past six years, this year being the lowest not only for the period shown in the table, but for thirteen years. The gross income was \$133,744.37, a per capita of \$1.8227. This is the lowest income for many years, due no doubt to the inability relatives of patients to pay for their maintenance during these difficult times. The net per capita cost was \$5.1838, this being approximately the same as last year. The 50 cent per capita saving in operating costs was balanced off by the reduction in income of patients' board.

	WEEKLY PER CAPITA COST					
	1927	1928	1929	1930	1931	1932
Personal services	\$3.5715	\$3.7075	\$3.709	\$3.8532	\$4.1974	\$4.0194
Travel, transportation and office . .	.0811	.0898	.090	.0926	.0928	.0915
Food	1.4645	1.4667	1.552	1.4276	1.0767	.9864
Religious instruction . . . . .	.0185	.0183	.018	.0195	.0212	.0203
Clothing and materials . . . . .	.2251	.2375	.220	.2177	.2054	.1865
Furnishings and household supplies .	.4170	.4493	.427	.4061	.3418	.3137
Medical and general care . . . . .	.1850	.1944	.197	.1896	.1868	.1403
Heat, light and power . . . . .	.8203	.6269	.532	.5570	.5381	.4624
Farm . . . . .	.3163	.3209	.320	.2996	.2948	.2628
Grounds . . . . .	.0761	.1123	.102	.0876	.0768	.0556
Repairs, ordinary . . . . .	.2049	.2112	.200	.1983	.2077	.1941
Repairs and renewals . . . . .	.2562	.4055	.198	.1611	.2693	.2735
	\$7.6365	\$7.8403	\$7.585	\$7.5099	\$7.5088	\$7.0065

IMPROVEMENTS

The following improvements were financed out of maintenance: New dividing walls between boilers at the power house; steam, water, electric and sewerage connections to the Assembly Building; new switchboard of remote control type was provided at the power house; all high voltage wiring and circuit breakers being installed in a fireproof vault under operating panel thus removing all danger of contact with high voltage on operating floor; steam and hot water mains renewed and placed in concrete conduit from boiler room to sanitarium at Richmond Colony; addition built to old garage, and all cannery equipment installed therein; repair of fire damage at the power house and installation of Bowser Oil Storage Tanks with pumps and oil filter; renewal of gutters of service building; new poles for electric line to carpenter shop; fire alarm system extended to Heath Farm and whistle blowing machine installed at the power house.

SPECIAL APPROPRIATIONS

The new Assembly Building was completed and opened for use in October. It provides a hall with balcony capable of seating 800 people. A large stage with cyclorama and stage switchboard and suitable dressing rooms makes ample provision for entertaining groups. On the lower floor is a large recreation room, bowling alleys, canteen, and a serving-room of sufficient size for all purposes. Complete talking picture equipment is provided.

Work on the remodeling of Childs Building is approaching completion, and within a few months this building should be ready for occupancy and with its additions and new facilities it will make an excellent admission building.

SPECIAL APPROPRIATIONS REQUESTED FOR 1933

The following are the objects for which special appropriations have been requested for 1933:

(A) *Changes in water supply system* — The State Department of Health following a survey of the water supply at this hospital has objected on the grounds of its being a menace to health to the continuation of cross connections between the lake water system and the domestic supply which is obtained from the Metropolitan system. Inasmuch as the old water tower in which lake water is now stored has been condemned for the past fifteen years and is liable according to the reports of the inspectors to give out at any time, the changes now made to meet the objections of the Department of Health should also include plans for the complete abandonment of the old tower. Such changes according to prices secured at this time would cost approximately..... \$3,500.

(B) *Electric refrigeration* — Complaint of the Department of Health as to health menace of Lake Chauncy water applies equally well to ice harvested from that lake, and it is therefore urgently requested that an appropriation be secured to outfit all present ice storage boxes with compressors where such installation is practicable and the purchase of individual electric refrigerators elsewhere. According to a recent survey by two of the large manufacturers of this equipment the cost of such installation would be approximately..... \$9,000.

(C) *Tunnel from Main Group to Assembly Building* — The new Assembly building is ready for use but will never serve its full purpose until connected by a tunnel with the Main Group, provision having been made in its plans for such a tunnel connection and for the convenience and safe-handling of patients by the use of such tunnel. There are 690 patients in the Main Group, a very large proportion being feeble and infirm, and although they would enjoy and be capable of attending assemblies if they could do so without going out doors would be wholly unable to attend religious service or entertainments during the period of snow and ice. Estimated cost..... \$4,500.

(D) *Hay barn, horse barn, wagon shed unit* — With the new Farm Dormitory Building occupied, the center of farm activities will be shifted to the Heath Farm area, and the provision which has been requested for several years for the care of horses, and storage of hay, wagons, and implements in this area will be essential for proper operation of the farm. It is estimated that a horse barn for the accommodation of 22 horses can be erected for \$6,000; a separate barn for hay storage adjacent to this would cost \$4,000. and a wagon and implement shed for storage and protection of 85 wagons and implements which we now have, is estimated would cost \$2,500, making the complete unit..... \$12,500.

(E) *Addition to garage* — The new garage which was built on the two level plan requires additional funds for the addition of 9 storage spaces on the upper level, the estimated cost of which would be..... \$2,500.

(F) *Root cellar and vegetable storage* — The present root cellar in the basement of the carpenter shop is wholly inadequate in size and is so poorly adapted for its purpose that the loss of vegetables in storage is very great. A new root cellar with other vegetable storage on the second floor, to be located at Heath Farm, is urgently needed. Estimated cost..... \$7,500.

(G) *Pointing and painting buildings of Main Group* — This item has been brought forward for the last several years. The buildings have become rapidly more unsightly, paint is peeled from the bricks, mortar has loosened and fallen out, and leaks developed through walls. This project has the added merit of providing employment for a considerable number of men, and estimates have been secured of..... \$8,000.

(H) *Renewing plumbing in Talbot Building* — The plumbing of this building, which was installed at the time the building was erected in 1898, is antiquated, worn out and insanitary and should be renewed without delay. Careful figuring of the material and labor at present prices would show the total cost to be..... \$4,600.

(I) *Renovating Richmond Sanitarium* — This building requires thorough remodeling and renovation, it now being in a deplorable condition and unsuited for quartering either patients or employees. A carefully estimated cost would be \$5,400

(J) *Nurses' Home for one-hundred (100)* — This project was a part of the five year program in 1931. It is still needed. The four frame buildings which are now occupied by nurses and much overcrowded, are badly needed for the housing of other classes of employees who are now housed on the upper floors of the Administration Building, over a ward section, kitchen, and laundry. Estimated cost.....\$150,000

(K) *Industrial building* — An Industrial Building to furnish adequate space for a carpenter shop, furniture shop, paint shop, electrician's shop, sheet metal shop, plumbing and machine shop with sufficient storage space for the material required and the product manufactured is urgently needed. At present these activities are scattered throughout basements under the ward buildings and in some instances are a fire menace complained of by fire inspectors over a period of years. Estimated cost.....\$25,000

(L) *Laundry building* — This item is a part of the 5 year building program. The present laundry was built in 1892, when the hospital accommodated but 544 patients. It is of insufficient size, and so badly arranged that work cannot be done efficiently and economically. This need was recognized by your Department and included in your budget requests several years ago. Our present equipment for the most part is in excellent condition, could be moved to the new laundry, and comparatively little additional equipment would be required. The present laundry structure is sound, and could be incorporated in a new rear centre development. Therefore it is desirable to have this item secured this year to clear the way for subsequent development in this area. Estimated cost.....\$45,000

(M) *Rear Centre Development* — A new kitchen and dining-room building in the rear centre connected by corridors to the Main Group with cafeterias and dining-rooms for both patients and employees, as well as bakery, butcher shop and cold storage facilities, is badly needed. By such a development the present administration kitchen and diet kitchen would be abandoned in the present location and carried on much more efficiently in the new location. Estimated cost.....\$125,000

(N) *Enclosed fire escapes, West Wing* — There are two narrow exterior iron fire escapes on West Wing, which is the building in which the most disturbed type of woman patient is cared for. The patients could not in emergency be removed from the ward over these fire escapes and they should be replaced at once with masonry towers, with fireproof stairways external to the building. The contractor's estimate is.....\$4,500

(O) *Reception building* — A new reception building to be situated between and to the East of Codman and Childs Buildings and to consist of a central section with receiving offices, doctors' offices, record office, operating room, recovery rooms, pharmacy, social service office, x-ray department, laboratory, dental department and hospital for sick employees, two wings for the accommodation each of 75 male and 75 female patients, with hydrotherapeutic equipment and open air porches. This building is necessary for normal expansion of this hospital to accommodate with proper spacing the number of patient now cared for. If this building is provided, Codman and Childs Buildings, which are fireproof and now being used for reception buildings for the two sexes would become available for use as infirmary buildings for the two sexes and would obviate the necessity as at present of caring for feeble, bed-ridden patients in wards of the main group which are not fireproof. This arrangement would segregate all medical work in a group of four buildings adjacent to each other and none but able-bodied patients would require to be cared for in the other buildings, and facilities for all types of care and treatment would be available in the new structure requested. Estimated cost.....\$350,000

REPAIRS AND RENEWALS REQUESTED FOR 1933

The following items have been requested as repairs and renewals for 1933:

Oil burners for ranges	\$1,100.00
Coffee grinder for store	200.00
New cable, power house to Talbot Building	378.00
Renewal of plumbing, West Wing	995.00
Renew flue, Warren boiler house	287.00
Installation of showers, West Wing	550.00
Re-tubing boiler, Warren Colony	240.00

CHANGES IN PERSONNEL

There have been no changes in the personnel of the medical or administrative departments during the year.

MEDICAL SERVICE

The medical service of the hospital has been conducted along lines which experience has shown to be most valuable. All patients are admitted to the reception building where after inspection and preliminary physical examination they are bathed and put to bed for intensive study. Complete physical examination, including neurological study and laboratory investigation with appropriate therapy for any physical abnormalities occupies the first week. During this period also a study of the patient's mental condition is in progress, notes are being accumulated as to the patient's mental reactions, a history and social service investigation in the community is under way, and when all data are available the case is presented to the staff meeting for determination of diagnosis and recommendations for therapy. Hydrotherapy facilities have been extended, and in the form of continuous bath treatment, neutral pack and colonic irrigation constitute one of the most valuable methods of treatment of mental cases. Medical prescriptions are made promptly where indicated, and specific treatment for those afflicted with syphilitic disease is carried out vigorously. Surgical lesions are given prompt attention and physiotherapy in its various modalities as mentioned in a following paragraph on that subject is not only available but is constantly used. Occupational therapy is prescribed and commenced early, there being ward classes conducted on each admission ward in order that the patient's attention may be engaged and his mind directed from distressing or troublesome channels. The consulting board and visiting staff have given of their time, skill and experience, and we are deeply indebted to them. They made 347 special examinations and performed 79 major operations.

LABORATORY SERVICE

Our pathologist, Dr. Lydia B. Pierce, who has had charge of the laboratory service, x-ray, physiotherapy and anti-syphilitic treatments submits the following report of her activities:

In the laboratory the number of clinical tests and tissue sections made during the year numbered 8,719, an increase of 1,844 over the number in the preceding year. This work occupies the full time of one technician.

A preliminary report of work done in a series of endocrine studies which was begun several years ago is submitted. Patients suffering from all three types of dementia praecox and from the manic-depressive psychoses were chosen, together with a very few that presented organic brain lesions. In the patients with symptoms of dementia praecox of the catatonic type, a surprisingly large number, 30%, showed a basal metabolism rate which was lower than normal, ranging from -20% to -38%. Some of these cases were markedly slowed in speech and action, and others were of the deteriorated, troublesome, assaultive type. All presented the cyanosis of the hands and feet which is so commonly seen in this type of disorder, and which shows a circulatory and presumably a metabolic disturbance. Associated with the lowered metabolism rates, tests of these same patients, based upon the method of Dreyer in his work, "The Assessment of Physical Fitness", showed a lowered vital capacity of from -20% to -43%. The body weights of all were below normal. These also were calculated by Dreyer's method, from the trunk measurements, with allowance made for sex.

In this same group, 14% of the cases showed evidence of dyspituitarism. They exhibited a very high nitrogen elimination in the urine, hyperglycaemia, increased non-protein nitrogen, urea and uric acid in the blood, lowered body weight and an increased basal metabolism rate.

In the group made up of patients suffering from the hebephrenic type of dementia praecox there was less divergence from the normal in the metabolism rate, but a few cases, in which it was lowered, were found, these ranging from -17% to -27%. This lowered metabolism rate was associated with a slow pulse. A few of these cases also showed hyperglycaemia. As a whole, these patients had lower blood pressures than were found in any of the other groups studied, a number of them presenting a systolic blood pressure of less than 100.

In the paranoid dementia praecox group there were a few cases which showed a slightly lowered basal metabolism rate. With these exceptions there was little departure from the normal. The blood pressures were higher, and the urinary and blood findings were normal.

In the manic-depressive group, no variations from normal were noted except a few cases of lowered vital capacity. It was felt that the results of the basal metabolism tests were less reliable with the depressed patients, because, as is well known, keen mental distress has the effect of raising the rate in normal persons. The manic cases were all of the hypomanic type, because of the obvious difficulty in obtaining co-operation from an excited, overactive patient.

The few arteriosclerotic and senile cases studied showed nothing except increased blood pressures and deficient elimination, which would be expected.

As a result of this study, no claim is made for anything more than an interesting coincidence of disturbance of the metabolism in a number of cases of dementia praecox.

A paper, "Acquired Hydrocephalus, report of two cases occurring in Adults", was presented at the eighty-eighth annual meeting of the American Psychiatric Association which was held in Philadelphia in June. Two cases of extreme internal hydrocephalus without cranial enlargement were reported. One occurred in a woman who was 43 years old at the time of her death, and the distension of the ventricles was due to primary ependymitis, not syphilitic in origin, with occlusion of the aqueduct of Sylvius. The other, in a woman aged 49, was of the so-called communicating type, and was due to a form of meningitis or arachnoiditis which produced adhesions about the mesencephalon, and interfered with free communication between the cisternae and the subarachnoid space over the cerebral hemispheres, where the cerebrospinal fluid is absorbed.

In addition to this paper, an article on "Hydrocephalus" was contributed to the latest edition of Sajous' encyclopaedia of Medicine which was published during the past summer.

The antisymphilitic treatments are conducted by the laboratory, and these are, in part, under the direction of the Massachusetts Department of Public Health. They constitute a venereal disease clinic to which patients from the community are referred, and the number of such patients was larger, during the past year, than ever before. The arsenical preparation used has been arsphenamine which was administered intravenously, except in a few instances when the patients had poor veins which could not be punctured. In these cases sulpharsphenamine was used for intramuscular injections. The form of mercury employed is the salicylate which is injected intramuscularly, a suspension in oil being used. Potassium iodide was also used in conjunction with mercury and arsphenamine for the cases of tertiary syphilis. It was found that advanced cardiac cases, and those with cerebral syphilitic endarteritis do better on mercury and potassium iodide. Syphilologists have found that, in this type of the disease, arsphenamine produces a too rapid absorption of the products of inflammation with bad results for the patient. In cases of this kind it is our custom to give several courses of treatment with mercury and potassium iodide before using arsphenamine. Several patients of advanced age with symptoms of aortic and cardiac syphilis have shown a most gratifying improvement on mercury and potassium iodide alone.

The following is a list of work done: Analyses, gastric content: Free Hcl, 1; total acidity, 1; combined acidity, 1; Lactic acid, 1; occult blood, 3; autopsies, 36; Babcock milk tests, 389; basal metabolism tests, 29; blood chemistry; sugar, 55; n.p., 1; urea, 1; calcium, 0; creatinin, 1; nitrogen, 3. Blood counts: red cell, 528; white cell, 621; differential, 582; haemoglobin percentage, 720; clotting time, 32; blood smears for malaria, 16; blood smears for stippling, 2; cultures, 33; frigility tests, 1; frigility tests red cell, 1; Hintons, 350; photographs, gross specimens, 13; photo micrographs, 34; renal function tests, 2; reticulocyte count, 1; sections stained, 272; smears, bacterial, 395; spinal fluid examinations; cytological count, 35; albumin, 35; globulin, 32; colloidal gold, 35; sputa, 73; tissue specimens, 22; tissues cut, 75. Treatments: infra red, 1; arsphenamine, 506; red, 1; arsphenamine, 506; mercury, 310; urinalyses, 3,250; vaccines autogenous, 1; Van der Bergh tests, 5; vomitus for bile, 1; x-rays, 220.

PHYSIOTHERAPY DEPARTMENT

Physiotherapy was first used at a very early date. The ancients advocated sun baths as a cure for various kinds of sickness, and undoubtedly, most of the benefit derived from this primitive form of treatment was due to the ultra violet radiations which the patients received. The only source of ultra violet radiation is the sun, whose rays furnish the following forms of radiant energy in the proportions given: infra-red, 80%, luminous rays, that is visible light, 13%, and ultra violet, 7%. The best artificial sources are, in the order given, the mercury vapor lamp and the carbon arc, both of which are in use in our physiotherapy department. Ultra violet rays produce profound biological effects, and applied as a form of treatment have many uses. They are a local counter irritant and relieve pain. This property we have found valuable in cases of neuralgia, neuritis and herpes zoster. The rays effect general body metabolism, and for this reason are used to build up a patients' resistance to infections of various kinds, for example frequent colds. It is also used in the treatment of acute or chronic bronchitis, and in mild or quiescent cases of tuberculosis. It has a direct effect on the skin and exercises a beneficial action upon a number of skin lesions, such a dematitis, venenata psoriasis, etc. In addition to these, certain of the ultra violet rays have a bacteriacidal action which renders them useful in the treatment of erysipelas, carbuncles, and other forms of local infection.

It is not necessary to add that these rays constitute a dangerous modality in the hands of untrained persons, and must be applied with due regard to the correct dosage, that is, to the time of exposure and the distance between the patient's skin and the source of energy. Failure to regard these factors would produce destruction of the skin with serious consequences.

Those radiations from the sun which are known as infra-red can also be applied artificially for therapeutic action in diseased conditions. These rays furnish heat which is intensified by reflection from a polished metal surface, and is effective in relieving pain and inflammation. In our work it has been found most effective in the treatment of arthritis, torticollis, lumbago, cellulitis, bursitis, and in the pain and inflammation following injuries like sprains and fractures.

Even more effective in some of these cases than infra-red radiation is the heat generated by high frequency electric currents, otherwise known as diathermy. The infra-red radiations apply heat to the surface of the body, and only the shorter rays penetrate to the subcutaneous tissues. The diathermy currents generate heat in the tissues, because of the resistance offered by the tissues to an electric current passing through them. Electrodes are placed on either side of an inflamed knee or shoulder, and any desired amount of heat may be developed in the joint itself. We have found this treatment most effective in cases of neuritis, sprains, bursitis, arthritis, neuralgia, etc. The heat exercises a sedative action and is counter irritant and when used in this way is termed medical diathermy. Care must be taken to insure the proper application and adjustment of the electrodes, with regard to size and skin contact, otherwise electric burns will be produced, and this introduces a second type of diathermy which is used for the purpose of producing tissue destruction and is called surgical diathermy. Special electrodes are used which apply sufficient heat at a given small area to produce coagulation or desiccation of tissue. This furnishes us with a valuable means of removing small superficial growths.

Auto-condensation is a form of medical diathermy, in which the current is made to pass through the patient's entire body, in such a way that he really becomes a part of the electrical machine. The patient is conscious of a general warmth and it relaxes the blood vessels. Its use is to reduce the blood pressure in cases of hypertension, and has given us good results in a number of cases.

A Burdick Morse wave generator was added to the equipment of the department at the close of the year. This furnishes all types of sinusoidal and galvanic currents, and will be used in the treatment of sprains and joint injuries, peripheral and central nerve lesions and various types of paralysis. The object of treatment to the muscles in these conditions is to maintain the normal tone and nutrition, to prevent atrophy of disuse, to prevent deformities, and to maintain muscle irritability until regeneration of injured nerves can take place.

The following list shows the number of treatments given during the year, and the various modalities used. Ultra-violet ray, 683; autocondensation, 485; infra-red, 1,223; diathermy, 176; electric coagulations, 19; total, 3,575. There were 387 roentgenograms made during the year.

DENTAL SERVICE

The Dental service is continued along conventional lines and occupies the full time of a resident Dentist and a dental assistant. Within a few days after admission every patient has a complete dental examination, the mouth is charted, and steps are taken immediately as soon as the patient is in condition to co-operate to place the mouth and teeth in healthy condition. Necessary extractions are done, cement and amalgam fillings provided and cleaning and scaling carried out in all cases without expense to the patient or his relatives, or if plate work, bridgework, or other expensive procedure is necessary, the relatives if of sufficient ability, are expected to pay the cost thereof. But if they are unable to do so, and such work is necessary for the maintenance of the patient's health the work is done at the expense of the Hospital. The following indicates the activities of the Dental office during the year: Bridgework, set and fitted, 19; removed and cleaned, 19; crowns, set and re-set, 33; cleaning and scaling, 4,270; examining and charting, 3,853; extractions, 1,082; filing teeth, 501; fillings: amalgam, 1,159; cement, 1,038; synthetic, 615; temporary, 477; plates: impression, bite and shade, 31; cleaned, 762; fitted and filed, 602; repaired, 65; treatments: gums, 2,891; oil of clove 1,098; number of patients with work completed, 1,678; number of visits, 4,320; x-rays taken, 25.

EXTRAMURAL ACTIVITIES

Following her return to the service of the hospital after a year spent abroad in special study Dr. Betsy Coffin in the fall of 1931 was placed in charge of all extramural activities. Under her direction they have been expanded and conducted with skill and diligence. The weekly clinic which has been held for many years at the Memorial Hospitals, Boston, has been continued as have the monthly clinics at Framingham and Marlborough. The Waltham clinics are now held twice monthly and a new clinic at Lowell is operated on a monthly basis. All of these clinics are primarily for the purpose of interviewing and examining patients during the first year of their absence from the hospital on visit, to advise and to direct their activities in such a way as to help them to make an adjustment to the community and family situation and avoid the necessity of a return to the hospital. By appointment cases are seen which may be referred by the physicians of the community for examination, diagnosis and recommendation, but not for therapy. At the request of an interested group of citizens of Framingham a child guidance clinic was instituted in that town early in the year on a weekly basis, but the extent of the work made it necessary later to hold sessions twice each week. Much satisfaction has been expressed by the parents of our young patients at this clinic and by the physicians and welfare organizations with the results which are being obtained. The clinic group consists of a psychiatrist, psychometrist, a social worker and a nurse-stenographer.

A recent statute which requires that judges cause juvenile offenders to have physical and mental examinations prior to disposition of their cases has brought many requests from the courts at Framingham, Westborough, and Marlborough for such examinations and a report of their results. In addition to these juvenile cases occasional adult cases are referred for special examination and report.

Children who are three or more years retarded in their school standing are examined upon the request of the superintendents of schools. Such examinations require extensive social service investigation, detailed history, a special study of the child's school record and physical and mental examination following which all data is analyzed and a report with recommendations is made to the superintendent of the schools. The number of such new examinations made during the year was ninety-eight. Requests by community groups, mothers' clubs, etc., for talks on child welfare or mental hygiene subjects have been met.

Patients in family care, numbering between twenty-five and thirty have been supervised and their mental and physical health cared for by means of periodic visits and examinations.

SOCIAL SERVICE DEPARTMENT

Our quota provides for three workers in this department. At the beginning of the year we had but one, and since June two have been in the service and long steps have been taken toward organizing the work of the department and co-ordinating it with all the demands of our extramural activities. The third position could and should have been filled but finances would not permit of it. The child guidance clinic at Framingham has required nearly half the time of one worker, and attendance at the other clinics, social service in connection with school children, investigation and anamneses in observation and court cases, follow-up work on patients on visit, supervision of family care activities, securing employment and subsequent supervision of certain cases upon release from the hospital and the many other customary activities of a social worker have filled, and more than filled the available working hours. I reiterate the belief expressed many times previously that an increase in the social service personnel would be a paying investment to the State in that a larger number of patients could be placed in the community and their activities supervised, their domestic affairs brought into adjustment, thus permitting them to not only cease to be charges to the State as hospital patients but frequently to become wholly or in part self-supporting.

TRAINING SCHOOL FOR NURSES

The Training School for Nurses is in healthy condition. Plenty of applicants for training are now available and in many instances those selected have more than the minimum requirements in the way of preliminary education and training. The junior class numbers 20, the intermediate 10, and the senior class 9, this being as large a number as it is desired to have in training at one time. On October 13th. the following nurses received diplomas: Pearl Ruby Jamieson, Mary Anne Kerr, Hazel Margaret Llewellyn, Rita Blanche MacDougall, Margaret Catherine MacFarlane, Laura Anne MacKaye, Grace Mary O'Keefe, Rachel Beatrice O'Neil, Leda Rosanna Soucy. The Alumnae award of ten dollars in gold to the graduate ranking highest in theory and practice was given to Miss Grace Mary O'Keefe.

In addition to the 30 hours instruction conducted weekly for senior and junior nurses, 6 hours weekly were devoted to the instruction of male and female attendants during April. Twenty-eight male attendants and eleven female attendants completed the required course.

OCCUPATIONAL THERAPY DEPARTMENT

Occupational therapy continues to be a very valuable adjunct in treatment of our patients. Classes on the admission wards make this form of treatment available early and similar classes at the Colonies and in the Infirmary result in benefit to the patients who participate. The large central occupational therapy room and the auxiliary room adjacent to Ward IV are the scene of more extensive activities and in their opportunity for a change from ward environment and association with others with similar interests are of added value. Parties, picnics, and other recreational activities conducted by this department are much enjoyed, and of benefit to those who participate. During the season groups under the guidance of occupational therapists assist in gardening and in canning the products of the farm. The furniture shop, shoe shop, the broom, mattress and upholstering shop not only provide opportunity for occupation and diversion to patients but are of direct economic value to the institution.

FARM

The summer of 1932 was about normal on the farm. There were three weeks of dry weather, which curtailed production on some crops. Usually there is either a wet or dry spell, so things about even up. The number of patients for outside work was smaller than could have been used to good advantage, so yields of some crops were not so much as expected. To offset this, some crops showed increased yields. The hay crop was about 100 tons short of the previous year. This is explained by having more land in cultivated crops, and the dry weather. Ensilage corn was a good crop, there being harvested over six hundred tons of ensilage on a slightly increased acreage.

Rowen and soiling crops were short, owing to lack of moisture at the right time. Potatoes gave a better yield than for some years previously. The blight was particularly bad on the early crop, and the late crop was affected to some extent. The average yield of potatoes was 209 bushels on fifteen acres. One plot which was measured by a representative of the Worcester County Extension Service, yielded at the rate of 375 bushels per acre. If all our land would yield potatoes at this rate, there might be a profit in raising them.

The apple crop was the best in a number of years. In 1931 a part of the trees were pruned. These trees bore very well. This fall another lot was so treated, and it is expected that these will do as well. A number of old trees which were of small value have been pulled out. This has made cultivation of the fields much easier, as well as beautifying the surroundings.

The garden made a creditable showing though here the shortage of labor was felt the most. In seeding the late vegetables the weeds were able to get the first start, so the seedlings were set back for some time.

The swine received a set-back in 1931 by having a cholera attack, so the production of pork was less than was planned. Production was at a considerable less cost, however.

Electric lights have been installed at the piggery and a litter carrier is ready for installation. The adjacent yards have been plowed and forage crops grown. The new Northboro highway which passed through the pasture has necessitated a change in pasture plans, but a new scheme is being marked out.

The cattle are still on the Federal Accredited list, there having been no reactors to the T. B. test. The breeding program has been somewhat upset during 1932, hence the average production per cow fell off compared to 1931. There are a number of typy heifers about to freshen, and a good milk flow is expected. There are on hand now 61 head of milking cows, and 66 head of young stock and calves.

There was produced on the farm during the year 1932 the following: 621 tons ensilage corn, 172 tons green feed, 135 tons hay, 39 tons millet, 26 tons barley, green, 4 tons rowen, 46 tons mangels, 22 tons corn fodder, 3,015 bu. apples, 954 bx. strawberries, 756 lbs. peaches, 294 lbs. grapes, 5,220 lbs. pears, 3,140 bu. potatoes, 2,037 lbs. asparagus, 27,868 lbs. string beans, 32,776 lbs. beets, 38 lbs. beet greens, 56,013 lbs. cabbage, 475 lbs. canteloupe, 42,019 lbs. carrots, 983 lbs. cauliflower, 8,122 lbs. celery, 22,455 lbs. chard, 46,794 lbs. sweet corn, 11,554 lbs. cucumbers, 11,883 lbs. lettuce, 58,185 lbs. onions, 42,905 lbs. parsnip, 1,263 lbs. peas, 4,044 lbs. peppers, 4,870 lbs. pumpkins, 27 lbs. radishes, 14,733 lbs. rhubarb, 9,379 lbs. spinach, 18,072 lbs. summer squash, 9,794 lbs. winter squash, 83,334 lbs. tomatoes, 70,131 lbs. turnip, 9,096 lbs. beef, 316 lbs. liver, 46,794 lbs. pork, 340,707 qts. milk.

GROUND S

During the year the grounds presented a good appearance except for some construction, with its attendant litter.

A new Assembly Building has been added to the center group. This is a pleasing addition with its setting of trees and shrubs with ample walks and roads leading to it.

The grounds at Heath Dormitory are in good shape. Here too, shrubbery and evergreens enhance the natural building site. The new road built across the front and to the rear does much to set the building off to good advantage.

The grounds in general received the most care, and showed results. Some new shrubbery was planted, and the overgrown places were thinned out and pruned. Many of the old apple trees near the acute service buildings have been removed. This has changed the appearance of the landscape for the better. Some of the shade trees were pruned of their dead and dying limbs.

The roads did not receive as much attention as usual because of decreased appropriation. Flowerbeds were increased this season, making more places brighter, and bringing pleasure to many. The greenhouse gave a good account of itself. Aside from starting the young plants for the farm, there were furnished 5,575 potted plants, and 4,675 bouquets for the wards and homes. About 9,800 bedding plants were used. In conjunction, the large outdoor flower garden was very productive.

ENTERTAINMENT

The usual program of entertainment for patients and employees has been followed. During the earlier portion of the year motion pictures of the silent type were shown, but since our new Assembly Building was opened for use in October, talking pictures have been shown weekly and are much enjoyed by patients and employees, many of the former never having seen this sort of entertainment before. The hospital orchestra has been revived. Under the direction of Dr. Fiedler a group has been gathered together and their enthusiasm and zeal has brought them to a degree of excellence which wins them much applause. They furnish music for patients' dances and other occasions. Chorus singing under the direction of Professor Millington of Marlborough has been continued, and the annual concert given at the end of the season testified to the excellence of the instruction and the talent of the participants. The Summer Camp has been conducted as usual, picnics, baseball, field days, tennis and other out door sports have been popular. The extensive program from Christmas to New Year's has been a large feature of entertainment here. We have continued to have the benefit of regular visits by American Legion Auxiliaries of the surrounding towns. Not only former ex-service men but other groups of patients benefit by their generosity.

PATIENT'S LIBRARY

The library suffered a great loss in the death of Miss Brown, who had for many years conducted its activities. Following a brief period of inactivity, with the assistance of the State Division of Public Libraries, the library was re-organized and re-catalogued and many obsolete items eliminated. Our large subscription list of magazines has been continued, some books have been added by purchase and others by donation, and I extend my hearty thanks to those who have made donations of books or magazines or contributions to the entertainment fund.

In conclusion I wish to express my appreciation of the loyal assistance of members of my medical staff, department heads, and all other employees without whose aid such success as we have had would not have been possible.

To the members of your Board I wish to express my appreciation for your encouragement and support.

Respectfully submitted,

WALTER E. LANG, M.D., *Superintendent*

VALUATION

November 30, 1932

REAL ESTATE	
Land, 763.93 acres	\$68,770.00
Buildings	1,253,593.12
	\$1,322,363.12
PERSONAL PROPERTY	
Travel, transportation and office expenses	\$4,354.07
Food	7,773.46
Clothing and materials	16,159.08
Furnishings and household supplies	138,314.31
Medical and general care	13,178.23
Heat and other plant operation	85,303.09
Farm	57,494.15
Garage and grounds	10,010.61
Repairs	4,212.89
	\$336,799.89
SUMMARY	
Real estate	\$1,322,363.12
Personal property	336,799.89
	\$1,659,163.01

FINANCIAL STATEMENT

To the Department of Mental Diseases:

I respectfully submit the following report of the finances for this institution for the fiscal year ending November 30, 1932.

CASH ACCOUNT
Receipts

Income	
Board of Patients	\$129,975.64
Personal services:	
Reimbursement from Board of Retirement	187.87

Sales:

Travel, transportation and office expense	52.86	
Food	2,248.52	
Clothing and materials	8.54	
Furnishings and household supplies	10.48	
Medical and general care	8.69	
Farm:		
Cows and calves	181.05	
Hides	73.21	
Bags	25.10	
Garage and grounds	.51	
Repairs, ordinary	58.36	
Total sales		\$2,667.32
Miscellaneous:		
Interest on bank balances	\$202.59	
Rent	707.13	
Interest Patients Cash	3.82	
		913.54
Total, income		\$133,744.37

MAINTENANCE

Balance from previous year, brought forward	\$20,067.38
Appropriations, current year: Chap. 170, Acts 1932	506,500.00
Total	\$526,567.38
Expenses (as analyzed below)	514,104.10
Balance reverting to Treasury of Commonwealth	\$12,463.28

Analysis of Expenses

Personal services	\$294,922.58
Religious instruction	1,488.00
Travel, transportation and office expenses	6,010.58
Food	72,378.92
Clothing and materials	13,691.05
Furnishings and household supplies	23,014.43
Medical and general care	10,295.98
Heat, and other plant operation	33,931.60
Farm	19,281.96
Garage and grounds	4,076.27
Repairs ordinary	14,244.03
Repairs and renewals	20,068.70
Total expenses for maintenance	\$514,104.10

SPECIAL APPROPRIATIONS

Balance December 1, 1931	\$120,527.10
Appropriations for current year	8,000.00
Total	\$128,527.10
Expended during the year (see statement below)	\$120,008.61
Reverting to Treasury of Commonwealth	748.99
	120,757.60
Balance November 30, 1932, carried to next year	\$7,769.50

OBJECT	Act or Resolve	Whole Amount	Expended during Fiscal Year	Total Expended to Date	Balance at End of Year
Buildings, Farm Colony	115-1930	\$105,000.00	\$22,774.46	\$104,626.48	\$373.52*
Garage	115-1930	5,000.00	1,069.54	4,883.33	116.67*
Pumping equipment	115-1930	22,000.00	3,675.89	21,960.55	39.45*
Renovation Warren House	115-1930	12,000.00	-	11,965.20	34.80*
Purchase of Flat Work Ironer	245-1931	7,800.00	-	7,691.50	180.50*
Improvement Power House	245-1931	4,700.00	1,148.31	4,695.95	4.05*
Renovating Childs Building	245-1931	27,000.00	20,408.73	20,408.73	6,591.27
Assembly Building, equipment	268-1931	85,000.00	63,478.45	84,368.54	631.46
Furnishing Farm Dormitory	170-1932	8,000.00	7,453.23	7,453.23	546.77
		\$276,500.00	\$120,008.61	\$267,981.51	\$8,518.49

Balance reverting to Treasury of the Commonwealth during year (mark item with *).	\$748.99
Balance carried to next year	7,769.50
Total as above	\$8,518.49

PER CAPITA

During the year the average number of inmates has been 1,411.054.
 Total cost of maintenance, \$514,104.10.
 Equal to a weekly per capita cost of \$7.0065.
 Receipt from sales, \$2,667.32.
 Equal to a weekly per capita of \$.0363.
 All other institution receipts, \$131,077.05
 Equal to a weekly per capita of \$1.7864.
 Net weekly per capita of \$5.1838.

Respectfully submitted,
 CARRIE G. POOR, *Treasurer.*

STATISTICAL TABLES

AS ADOPTED BY THE AMERICAN PSYCHIATRIC ASSOCIATION
 PRESCRIBED BY THE MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

TABLE 1. *General Information*

Data correct at end of hospital year November 30, 1932

1. Date of opening as a hospital for mental diseases, December 1, 1886.

2. Type of hospital: State.

3. Hospital plant:

Value of hospital property

Real estate, including buildings

Personal property

\$1,322,363.12

336,799.89

Total

\$1,659,163.01

Total acreage of hospital property owned, 763.93 acres.

Total acreage under cultivation during previous year, 316.15.

4. Officers and employees:

	Actually in Service at End of Year			Vacancies at End of Year		
	M.	F.	T.	M.	F.	T.
Superintendents	1	—	1	—	—	—
Assistant physicians	4	4	8	—	—	—
Total physicians	5	4	9	—	—	—
Stewards	1	—	1	—	—	—
Resident dentists	1	—	1	—	—	—
Pharmacists	—	1	1	—	—	—
Graduate nurses	—	24	24	—	—	—
Other nurses and attendants	65	54	119	2	1	3
Occupational therapists	2	7	9	—	—	—
Social workers	—	2	2	—	1	1
All other officers and employees	79	58	137	3	—	3
Total officers and employees	153	150	303	5	2	7

NOTE: — The following items, 5-10 inclusive, are for the year ended September 30, 1932.

5. Census of Patient Population at End of Year:

	Actualy in Hospital			Absent from Hospital but Still on Books		
	M.	F.	T.	M.	F.	T.
WHITE:						
Insane	598	817	1,415	97	132	229
Mental defectives	—	2	2	—	—	—
Drug addicts	—	1	1	—	—	—
All other cases	3	5	8	—	—	—
Total	601	825	1,426	97	132	229
OTHER RACES:						
Insane	16	7	23	1	4	5
Grand Total	617	832	1,449	98	136	234

6. Patients under treatment in occupational-therapy classes, including physical training, on date of report	37	220	257
7. Other patients employed in general work of hospital on date of report	347	312	659
8. Average daily number of all patients actually in hospital during year	576.465	821.848	1,398.313
9. Voluntary patients admitted during year	5	4	9
10. Persons given advice or treatment in out-patient clinics during year	71	84	155

TABLE 2. *Financial Statement*

See Treasurer's report for the data requested under this table.

NOTE: — The following tables 3-19, inclusive, are for the statistical year ended September 30, 1932.

TABLE 3. *Movement of Patient Population*

	REGULAR COURT COMMITMENT (INSANE)			VOLUNTARY			TEMPORARY CARE			OBSERVATION			TOTAL ON BOOKS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Patients on books of institution September 30, 1931.	639	933	1,572	4	4	8	-	1	1	2	2	4	645	940	1,585
Admissions during year:															
First admissions	177	168	345	1	-	1	2	-	2	12	5	17	192	173	365
Readmissions	47	60	107	4	4	8	-	-	-	9	5	14	60	69	129
Transfers from other hospitals for mental diseases	13	27	40	-	-	-	-	-	-	-	1	1	13	28	41
Total received during year	237	255	492	5	4	9	2	-	2	21	11	32	265	270	535
Total on books during year	876	1,188	2,064	9	8	17	2	1	3	23	13	36	910	1,210	2,120
Discharged from books during year:															
As recovered	30	53	83	-	-	-	-	-	-	1	1	2	31	54	85
As improved	33	37	70	-	-	-	-	-	-	-	-	-	33	37	70
As unimproved	9	20	29	-	-	-	-	-	-	-	1	1	9	21	30
As without psychosis	-	1	1	4	3	7	-	1	1	20	8	28	24	13	37
Transferred to other hospitals for mental diseases	19	32	51	-	-	-	-	-	-	-	1	1	19	33	52
Died during year	76	84	160	-	-	-	2	-	2	1	-	1	79	84	163
Total discharged, transferred and died during year	167	227	394	4	3	7	2	1	3	22	11	33	195	242	437
Insane patients remaining on books of hospital at end of hospital year:															
In hospital	611	825	1,436	5	5	10	-	-	-	1	2	3	617	832	1,449
On parole or otherwise absent	98	136	234	-	-	-	-	-	-	-	-	-	98	136	234
Total	709	961	1,670	5	5	10	-	-	-	1	2	3	715	968	1,683

TABLE 4. *Nativity of First Admissions and of Parents of First Admissions*

NATIVITY	PATIENTS			PARENTS OF MALE PATIENTS			PARENTS OF FEMALE PATIENTS		
	M.	F.	T.	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States	109	109	218	50	47	43	60	56	51
Africa	1	—	1	—	—	—	—	—	—
Austria	3	—	3	4	5	4	1	—	—
Canada ¹	22	18	40	28	28	25	22	30	21
Denmark	1	—	1	1	1	1	—	—	—
England	4	5	9	6	7	5	4	9	3
Finland	1	—	1	1	1	1	1	1	1
Germany	2	1	3	4	4	4	1	2	1
Greece	—	1	1	1	1	1	1	1	1
Hungary	—	1	1	—	—	—	1	1	1
Ireland	10	14	24	37	37	34	40	32	30
Italy	8	6	14	13	13	13	11	11	11
Norway	1	—	1	1	1	1	1	1	1
Poland	1	1	2	2	1	1	2	2	2
Portugal	2	4	6	4	4	4	5	5	5
Russia	3	3	6	7	6	6	5	5	5
Scotland	—	—	—	—	2	—	3	1	1
South America	1	—	1	—	—	—	—	—	—
Sweden	4	3	7	5	5	5	4	5	4
Turkey in Asia	—	—	—	2	2	2	—	—	—
West Indies ²	1	—	1	1	1	1	—	—	—
Other countries	2	2	4	4	4	4	3	3	3
Unascertained	1	—	1	5	7	5	3	3	2
Total.	177	168	345	177	177	160	168	168	143

¹Includes Newfoundland.²Except Cuba and Porto Rico.

TABLE 5. *Citizenship of First Admissions*

	M.	F.	T.
Citizens by birth	109	109	218
Citizens by naturalization	19	9	28
Aliens	48	50	98
Citizenship unascertained	1	—	1
Total	117	168	345

TABLE 6. *Psychoses of First Admissions*

PSYCHOSES	M.	F.	T.	M.	F.	T.
1. Traumatic psychoses				4	1	5
2. Senile psychoses				4	5	9
3. Psychoses with cerebral arteriosclerosis				42	44	86
4. General paralysis				10	3	13
5. Psychoses with cerebral syphilis				2	1	3
6. Psychoses with Huntington's chorea				—	—	—
7. Psychoses with brain tumor				1	—	1
8. Psychoses with other brain or nervous diseases, other diseases				1	2	3
9. Alcoholic psychoses, total				12	1	13
Acute hallucinosis	1	—	1			
Other types, acute or chronic	11	1	12			
10. Psychoses due to drugs and other exogenous toxins, total				1	1	2
Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined	—	1	1			
Other exogenous toxins	1	—	1			
11. Psychoses with pellagra				—	—	—
12. Psychoses with other somatic diseases, other diseases or conditions				1	—	1
13. Manic-depressive psychoses, total				30	39	69
Manic type	10	13	23			
Depressive type	20	23	43			
Other types	—	3	3			
14. Involution melancholia				2	11	13
15. Dementia praecox (schizophrenia)				49	47	96
16. Paranoia and paranoid conditions				—	1	1
17. Epileptic psychoses				2	2	4
18. Psychoneuroses and neuroses, total				2	2	4
Psychasthenic type (anxiety and obsessive forms)	1	—	1			
Neurasthenic type	1	2	3			
19. Psychoses with psychopathic personality				5	2	7
20. Psychoses with mental deficiency				6	5	11
21. Undiagnosed psychoses				—	—	—
22. Without psychosis, total				3	1	4
Drug addiction without psychosis	1	—	1			
Mental deficiency without psychosis	1	—	1			
Others	1	1	2			
Total				177	168	345

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses*

RACE	Total			Traumatic			Senile			With cerebral arterio-sclerosis			General paralysis			With cerebral syphilis		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	3	3	6	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
Armenian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	57	57	114	1	—	1	2	3	5	23	24	47	6	1	7	—	—	—
Finnish	1	10	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	13	10	23	1	—	1	—	—	—	4	1	5	—	—	—	—	—	—
German	4	3	7	—	—	—	—	—	—	2	1	3	—	—	—	—	—	—
Greek	1	2	3	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Hebrew	6	6	12	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—
Irish	48	50	98	—	1	1	2	1	3	7	11	18	1	1	2	—	—	—
Italian ¹	13	12	25	—	—	—	—	—	—	2	2	4	1	—	1	—	—	—
Lithuanian	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	3	5	8	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Scandinavian ²	7	5	12	1	—	1	—	—	—	2	2	4	—	—	—	1	—	1
Scotch	—	2	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Slavonic ³	7	2	9	1	—	1	—	—	—	1	—	1	1	—	1	1	—	1
Turkish	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	8	8	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total.	177	168	345	4	1	5	4	5	9	42	44	86	10	3	13	2	1	3

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Continued*

RACE	With brain tumor			With other brain or nervous diseases			Alcoholic			Due to drugs and other exogenous toxins			With other somatic diseases			Manic-depressive			Involution melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Armenian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	—	—	—	—	—	—	3	—	3	—	—	—	1	—	1	6	12	18	1	4	5
Finnish	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
French	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	1	2	3	—	3	3
German	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hebrew	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3	—	—	—
Irish	—	—	—	—	—	—	6	1	7	—	1	1	—	—	—	12	12	24	—	2	2
Italian ¹	1	—	1	—	2	2	—	—	—	—	—	—	—	—	—	1	5	6	1	—	1
Lithuanian	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Portuguese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3	—	—	—
Scandinavian ²	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Scotch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic ³	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	2	4	6	—	1	1
Total.	1	—	1	1	2	3	12	1	13	1	1	2	1	—	1	30	39	69	2	11	13

¹Includes "North" and "South".²Norwegians, Danes and Swedes.³Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. *Race of First Admissions Classified with Reference to Principal Psychoses — Concluded*

RACE	Dementia praecox			Paranoia and paranoid conditions			Epileptic psychoses			Psycho- neuroses and neuroses			With psycho- pathic personality			With mental deficiency			Without psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Armenian	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English	8	10	18	—	1	1	1	—	1	1	1	2	2	1	3	1	—	1	1	—	1
Finish	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
French	3	4	7	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1
German	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1
Hebrew	2	3	5	—	—	—	—	—	—	1	—	1	—	1	1	—	—	—	—	—	—
Irish	17	15	32	—	—	—	—	1	1	—	1	1	—	—	—	3	3	6	—	—	—
Italian ¹	6	3	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Lithuanian	2	—	2	—	—	—	—	—	—	—	—	—	1	—	1	—	1	1	—	—	—
Portuguese	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scandinavian ²	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scotch	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slavonic ³	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed	3	2	5	—	—	—	1	—	1	—	—	—	1	—	1	—	1	1	—	—	—
Total	49	47	96	—	1	1	2	2	4	2	2	4	5	2	7	6	5	11	3	1	4

¹Include "North" and "South".²Norwegians, Danes and Swedes.³Includes Bohemian, Bosnian, Croatian, Delmatian, Herzegovinian, Montenegrin, Moravina, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Under 15 years			15-19 years			20-24 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	4	1	5	—	—	—	—	—	—	—	—	—
2. Senile	4	5	9	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	42	44	86	—	—	—	—	—	—	—	—	—
4. General paralysis	10	3	13	—	—	—	—	—	—	1	—	1
5. With cerebral syphilis	2	1	3	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	2	3	—	—	—	—	—	—	—	1	1
9. Alcoholic	12	1	13	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins	1	1	2	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	—	1	—	—	—	—	—	—	—	—	—
13. Manic-depressive	30	39	69	—	—	—	2	5	7	4	2	6
14. Involution melancholia	2	11	13	—	—	—	—	—	—	—	—	—
15. Dementia praecox	49	47	96	—	—	—	3	5	8	16	7	23
16. Paranoia and paranoid conditions	—	1	1	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	2	2	4	—	—	—	—	—	—	2	1	2
18. Psychoneuroses and neuroses	2	2	4	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	5	2	7	1	—	1	1	—	1	—	—	—
20. With mental deficiency	6	5	11	—	—	—	2	1	3	1	1	2
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	3	1	4	—	—	—	—	—	—	—	—	—
Total	177	168	345	1	—	1	8	11	19	24	12	36

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Continued*

PSYCHOSES	25-29 years			30-34 years			35-39 years			40-44 years			45-49 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
4. General paralysis	—	—	—	—	—	—	1	1	2	1	—	1	1	—	1
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
9. Alcoholic	—	—	—	—	—	—	1	—	1	2	—	2	—	—	—
10. Due to drugs and other exogenous toxins	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive	1	3	4	3	11	14	1	2	3	4	3	7	6	4	10
14. Involution melancholia	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3
15. Dementia praecox	5	5	10	8	4	12	8	6	14	3	6	9	5	8	13
16. Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
19. With psychopathic personality	1	1	2	2	—	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	1	1	—	—	—	1	1	2	—	1	1	2	—	2
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	—	—	—	1	—	1	—	—	—	1	—	1	—	1	1
Total	8	11	19	15	15	30	12	10	22	12	12	24	16	17	33

TABLE 8. *Age of First Admissions Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	50-54 years			55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	1	1	2	—	2	—	—	—	—	—	—	—	—	—
2. Senile	—	—	—	—	1	1	1	1	2	2	—	2	1	3	4
3. With cerebral arteriosclerosis	—	3	3	1	1	2	5	9	14	4	3	7	32	27	59
4. General paralysis	2	1	3	—	—	—	1	—	1	3	1	4	—	—	—
5. With cerebral syphilis	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic	3	—	3	4	1	5	1	—	1	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive	5	4	9	3	4	7	—	—	—	1	—	1	—	1	1
14. Involution melancholia	—	4	4	1	5	6	—	—	—	—	—	—	—	—	—
15. Dementia praecox	1	5	6	—	1	1	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoid conditions	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	1	—	1	1	1	2	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Total	15	19	34	12	16	28	9	10	19	12	4	16	33	31	64

TABLE 10. *Environment of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Urban			Rural		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	4	1	5	4	1	5	—	—	—
2. Senile	4	5	9	3	5	8	1	—	1
3. With cerebral arteriosclerosis	42	44	86	36	42	78	6	2	8
4. General paralysis	10	3	13	10	3	13	—	—	—
5. With cerebral syphilis	2	1	3	1	1	2	1	—	1
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	1	—	1	—	—	—
8. With other brain or nervous diseases	1	2	3	1	2	3	—	—	—
9. Alcoholic	12	1	13	11	1	12	1	—	1
10. Due to drugs and other exogenous toxins	1	1	2	1	1	2	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	—	1	1	—	1	—	—	—
13. Manic-depressive	30	39	69	30	38	68	—	1	1
14. Involution melancholia	2	11	13	2	11	13	—	—	—
15. Dementia praecox	49	47	96	45	44	89	4	3	7
16. Paranoia and paranoid conditions	—	1	1	—	1	1	—	—	—
17. Epileptic psychoses	2	2	4	2	2	4	—	—	—
18. Psychoneuroses and neuroses	2	2	4	2	2	4	—	—	—
19. With psychopathic personality	5	2	7	5	2	7	—	—	—
20. With mental deficiency	6	5	11	6	5	11	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—
22. Without psychosis	3	1	4	3	1	4	—	—	—
Total	177	168	345	164	162	326	13	6	19

TABLE 11. *Economic Condition of First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Dependent			Marginal		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	4	1	5	—	—	—	4	1	5
2. Senile	4	5	9	—	—	—	4	5	9
3. With cerebral arteriosclerosis	42	44	86	2	—	2	40	44	84
4. General paralysis	10	3	13	1	—	1	9	3	12
5. With cerebral syphilis	2	1	3	—	—	—	2	1	3
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	—	—	—	1	—	1
8. With other brain or nervous diseases	1	2	3	—	—	—	1	2	3
9. Alcoholic	12	1	13	—	—	—	12	1	13
10. Due to drugs and other exogenous toxins	1	1	2	—	—	—	1	1	2
11. With pellagra	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	—	1	—	—	—	1	—	1
13. Manic-depressive	30	39	69	—	—	—	30	39	69
14. Involution melancholia	2	11	13	—	—	—	2	11	13
15. Dementia praecox	49	47	96	—	—	—	49	47	96
16. Paranoia and paranoid conditions	—	1	1	—	—	—	—	1	1
17. Epileptic psychoses	2	2	4	—	—	—	2	2	4
18. Psychoneuroses and neuroses	2	2	4	—	—	—	2	2	4
19. With psychopathic personality	5	2	7	—	—	—	5	2	7
20. With mental deficiency	6	5	11	1	—	1	5	5	10
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—
22. Without psychosis	3	1	4	—	—	—	3	1	4
Total	177	168	345	4	—	4	173	168	341

TABLE 12. *Use of Alcohol by First Admissions Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			Abstinent			Temperate			Interpeate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	4	1	5	1	1	2	1	—	1	2	—	2	—	—	—
2. Senile	4	5	9	2	5	7	—	—	—	2	—	2	—	—	—
3. With cerebral arterio-sclerosis	42	44	86	27	42	69	10	2	12	5	—	5	—	—	—
4. General paralysis	10	3	13	6	3	9	1	—	1	2	—	2	1	—	1
5. With cerebral syphilis	2	1	3	1	1	2	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	2	3	1	2	3	—	—	—	—	—	—	—	—	—
9. Alcoholic	12	1	13	—	—	—	—	—	—	12	1	13	—	—	—
10. Due to drugs and other exogenous toxins	1	1	2	—	1	1	—	—	—	1	—	1	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
13. Manic-depressive	30	39	69	20	38	58	4	1	5	6	—	6	—	—	—
14. Involution melancholia	2	11	13	2	11	13	—	—	—	—	—	—	—	—	—
15. Dementia praecox	49	47	96	26	45	71	8	1	9	15	1	16	—	—	—
16. Paranoia and paranoid conditions	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
17. Epileptic psychoses	2	2	4	2	2	4	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	2	2	4	2	2	4	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	5	2	7	3	2	5	—	—	—	2	—	2	—	—	—
20. With mental deficiency	6	5	11	5	5	10	—	—	—	1	—	1	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychoses	3	1	4	3	1	4	—	—	—	—	—	—	—	—	—
Total	177	168	345	102	161	263	26	5	31	48	2	50	1	—	1

TABLE 14. *Psychoses of Readmissions*

PSYCHOSES	Males			Females			Total
1. Traumatic psychoses				2	—		2
2. Senile psychoses				—	1		1
3. Psychoses with cerebral arteriosclerosis				2	4		6
4. General paralysis				—	—		—
5. Psychoses with cerebral syphilis				—	—		—
6. Psychoses with Huntington's chorea				—	—		—
7. Psychoses with brain tumor				—	—		—
8. Psychoses with other brain or nervous diseases				—	—		—
9. Alcoholic psychoses				1	—		1
10. Psychoses due to drugs and other exogenous toxins				1	—		1
11. Psychoses with pellagra				—	—		—
12. Psychoses with other somatic diseases				—	—		—
13. Manic-depressive psychoses				21	31		52
14. Involution melancholia				—	1		1
15. Dementia praecox				20	19		39
16. Paranoia and paranoid conditions				—	—		—
17. Epileptic psychoses				—	—		—
18. Psychoneuroses and neuroses				—	2		2
19. Psychoses with psychopathic personality				—	—		—
20. Psychoses with mental deficiency				—	2		2
21. Undiagnosed psychoses				—	—		—
22. Without psychosis				—	—		—
Total				47	60		107

TABLE 15. *Discharge of Patients Classified with Reference to Principal Psychoses and Condition on Discharge*

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	1	—	1	—	—	—
2. Senile	1	4	5	—	—	—	1	2	3	—	3	3
3. With cerebral arteriosclerosis	5	8	13	1	1	2	3	4	7	1	3	4
4. General paralysis	2	2	4	—	—	—	2	—	2	—	2	2
5. With cerebral syphilis	2	—	2	—	—	—	2	—	2	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	1	1	2	—	1	1	—	—	—	1	—	1
9. Alcoholic	9	—	9	5	—	5	2	—	2	2	—	2
10. Due to drugs and other exogenous toxins	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	1	2	—	1	1	1	—	1	—	—	—
13. Manic-depressive	22	45	67	15	36	51	5	8	13	2	1	3
14. Involution melancholia	—	3	3	—	—	—	—	1	1	—	2	2
15. Dementia praecox	24	42	66	6	13	19	16	20	36	2	9	11
16. Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	2	1	3	2	1	3	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	2	1	3	1	—	1	—	1	1	1	—	1
20. With mental deficiency	—	2	2	—	—	—	—	2	2	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychoses	—	1	1	—	—	—	—	—	—	—	—	—
Total	72	111	183	30	53	83	33	37	70	9	20	29

TABLE 16. Causes of Death of Patients Classified with Reference to Principal Psychoses — Concluded.

CAUSES OF DEATH		Manic-depressive	Involution melancholia	Dementia praecox	Paranoia and paranoid conditions	With mental deficiency	*All other psychoses
		M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
<i>Epidemic, Endemic and Infectious Diseases</i>							
Lethargic encephalitis	.	—	—	—	—	—	1 1 2
Tuberculosis of the respiratory system	.	—	—	—	—	—	1 2 3
<i>General Diseases not Included in Class I</i>							
Diabetes	.	—	—	—	—	—	— 1 1
Other general diseases	.	—	—	—	—	—	—
<i>Diseases of the Nervous System</i>							
Cerebral hemorrhage, apoplexy	.	—	—	—	—	—	—
General paralysis of the insane	.	—	—	—	—	—	—
Other diseases of the nervous system	.	—	—	—	—	—	—
<i>Diseases of the Circulatory System</i>							
Endocarditis and myocarditis	.	1 5 6	—	1 9 10	—	—	—
Angina pectoris	.	—	—	—	—	—	—
Other diseases of the heart	.	—	—	—	—	—	—
Arteriosclerosis	.	3 1 4	1 1 1	2 — 2	1 1	—	2 — 2
<i>Diseases of the Respiratory System</i>							
Bronchopneumonia	.	1 — 1	1 1 1	—	—	—	—
Lobar pneumonia	.	—	—	—	—	—	—
Other diseases of the respiratory system (tuberculosis excepted)	.	— 1 1	—	— 2 2	—	1 — 1	1 — 1
<i>Diseases of the Digestive System</i>							
Diarrhea and enteritis	.	—	—	—	—	—	—
Appendicitis and typhlitis	.	—	—	—	—	—	—
Hernia and intestinal obstruction	.	—	—	—	—	—	—
<i>Non-Veneral Diseases of Genito-Urinary System and Anæmia</i>							
Nephritis	.	— 2 2	—	—	—	—	—
<i>Diseases of the Skin and the Cellular Tissues</i>							
Other diseases of skin and annæa	.	— 1 1	—	—	—	—	—
<i>External Causes</i>							
Suicide	.	—	—	—	—	—	—
Accidental traumatism	.	—	— 1 1	—	—	—	— 1 1
Total	.	5 11 16	— 3 3	7 20 27	— 1 1	2 1 3	5 5 10

*Includes group 22, "without psychoses".

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses*

PSYCHOSES	Total			15-19 years			20-24 years			25-29 years			30-34 years			35-39 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile	2	10	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis	39	28	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis	13	5	18	—	—	—	1	—	1	—	—	—	1	1	—	1	—	1
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	3	2	5	1	—	1	—	—	—	—	—	—	—	1	1	1	—	1
9. Alcoholic	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exo-toxins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
13. Manic-depressive	5	11	16	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
14. Involution melancholia	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox	7	20	27	—	—	—	1	2	3	—	1	1	1	1	2	1	1	2
16. Paranoia and paranoid conditions	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	2	1	3	1	—	1	—	—	—	1	1	—	—	—	—	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	76	84	160	2	—	2	2	2	4	—	2	2	1	4	5	3	2	5

TABLE 17. *Age of Patients at Time of Death Classified with Reference to Principal Psychoses — Concluded*

PSYCHOSES	44-44 years			45-49 years			50-54 years			55-59 years			60-64 years			65-69 years			70 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
2. Senile	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	—	2	—	9	9
3. With cerebral arteriosclerosis	—	—	—	—	—	—	1	1	—	1	—	1	—	1	1	3	1	3	35	25	60
4. General paralysis	2	—	2	2	1	3	2	1	3	2	—	2	1	—	1	2	2	4	—	—	—
5. With cerebral syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases	—	—	—	—	—	—	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
9. Alcoholic	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1	1	—	1
10. Due to drugs and other exogenous toxins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases	—	1	1	—	—	—	1	—	1	—	—	—	—	1	1	—	—	—	—	—	—
13. Manic-depressive	1	1	2	—	1	1	—	—	—	—	3	3	1	2	3	1	1	2	2	2	4
14. Involution melancholia	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1
15. Dementia praecox	—	—	—	—	2	2	—	1	1	—	2	2	1	2	3	1	—	1	2	8	10
16. Paranoia and paranoid conditions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
17. Epileptic psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
21. Undiagnosed psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychoses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3	2	5	2	5	7	4	4	8	4	6	10	3	7	10	11	4	15	41	46	87

TABLE 19. *Family Care Department*

	Male	Female	Total
Remaining in Family Care October 1, 1931	10	14	24
On visit from Family Care October 1, 1931	—	1	1
Admitted during the year	2	9	11
Whole number of cases within the year	12	24	35
Dismissed within the year	2	7	9
Returned to Institution	1	4	5
Discharged	—	1	1
On visit	1	2	3
Remaining in Family Care September 30, 1932	10	17	27
Supported by State	—	1	1
Private	10	16	26
Number of different persons within the year	12	22	34
Number of different persons dismissed	3	4	7
Number of different persons admitted	2	9	11
Average daily number in Family Care during the year	9.848	14.711	24.559
Supported by State	—	.398	.398
Private	9.848	14.313	14.161

